DRAFT
ENVIRONMENTAL ASSESSMENT

ST. CLAIR MUNICIPAL BOAT HARBOR
RENOVATION PROJECT

SUBMITTED BY:

THE CITY OF ST. CLAIR, MICHIGAN

SUBMITTED TO:

REGION 3
DIVISION OF FEDERAL AID
UNITED STATES FISH AND WILDLIFE SERVICE
SPORT FISH RESTORATION GRANT PROGRAM

January 2005

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1.0 PURPOSE AND NEED

1.1 Purpose

The City of St. Clair proposes to renovate and improve the existing St. Clair Municipal Boat Harbor (Marina), to replace deteriorating facilities, meet modern design standards and provide additional shore protection. A modern marina will promote tourism to the City of St. Clair, and an association with sport fishing, by providing better public waterfront access for pedestrians, fisherman, and the seasonal and transient boater. It will also provide the greatest opportunity for safe boating in the future.

The City of St. Clair has submitted a request for funding for the proposed project from the United States Fish and Wild Service (USFWS) through the Sport Fish Restoration Grant Program. As such, the project falls under to the National Environmental Protection Act (NEPA) and must comply with the NEPA process.

This Environmental Assessment (EA) evaluates the environmental impact of the proposed project and compares the impact to various alternatives as part of the NEPA process.

1.2 Need

The existing Marina has served the City with minimal renovations or improvements since its construction in 1964. Portions of the decking and fender piles were replaced in 1984 and 1999, but the underlying supporting structures remain as original construction and are now in a state of deterioration. Thus, there is a need to replace the dock supporting structures. There is also a need to modernize the slip sizes and widths to accommodate today's larger, contemporary boats. The broadside slips along the steel bulkhead have also experienced substantial siltation, resulting in a need to dredge the marina. Additionally, there is a need to prevent erosion and shore up the southern shoreline adjacent to private property, as the shoreline is being undermined from erosion, and endangering property and private facilities.

The proposed work will bring the docking facilities at the Marina into agreement with modern standards. A modern dock configuration will

better equip the marina to accommodate modern day recreational boats. The dock and shoreline renovations will help ensure the protection of property and the safety of the marina patrons.

1.3 Decisions that Need to be Made

The USFWS Regional Director must select one of the alternatives and decide whether the selected alternative will result in a significant impact upon the human environment, necessitating an Environmental Impact Statement or if a Finding of No Significant Impact (FONSI) is appropriate.

1.4 Background

The existing Marina was constructed in 1969, when a marina basin was excavated into the bank along the southern shoreline of the Pine River. The Marina has 104 slips, 49 are designated as seasonal and 55 as transient. The docks within the marina basin are fixed structures with wood pilling, stringers, and decking. The dock structures are in various states of repair ranging from poor to satisfactory. In 1984 Docks #1 and #2 had additional superstructure built on top of the existing structure to raise the deck approximately one foot. Dock #3 was also raised in a similar manner a few years later. Docks #4 and #5 had decking replaced on the main walkway and finger piers in 1990. In 1999 new decking was placed on the four 70 foot long docks. Through these renovations, the original wood support piles and stringers have remained, and are now in poor condition.

Dredging of the Marina basin is also needed due to current low water levels and the heavy silt load of the Pine River. In 2002, the City obtained permits from the United States Army Corps of Engineers (USCOE) and the Michigan Department of Environmental Quality (MDEQ) to dredge approximately 10,000 cubic yards of bottom sediment from the Marina to a depth of 6.5 feet below the Low Water Datum.

In 2000, the St. Clair Harbor Authority approved a Master Plan prepared by Abonmarche Consultants, Inc. (ACI) of Benton Harbor, Michigan. The Harbor Authority adopted the following improvement priorities as outlined by the Master Plan:

- Installation of new adjustable docks;
- Shoreline revetment improvements;
- Electrical Upgrade;
- In-place launch ramp expansion;
- Public waterfront expansion.

These improvements are being completed as funding becomes available. The electrical upgrade of the Marina was completed in 2003, and the

public waterfront expansion is ongoing with a Waterfront Master Plan completed in 2004 by ACI.

Permits from the MDEQ and USCOE have been obtained for the dock renovations and the shoreline improvements. Additionally, the City of St. Clair has submitted the project to the USFWS for funding consideration under the Sport Fish Restoration Program. The funding is pending the NEPA process and review of final design and compliance with the Americans with Disabilities Act (ADA).

2.0 ALTERNATIVES, INCLUDING THE PROPOSED ACTION

2.1 Alternatives Not Considered for Detailed Analysis

Relocation of the existing Marina was considered but deemed unfeasible due to the lack of adequate space for car/trailer parking and available property, within or adjacent to, the City of St. Clair for a large transient/seasonal marina.

2.2 Alternatives Studied in Detail

2.2.1 Alternative A (Preferred Alternative)

The Preferred Alternative is to renovate and reconfigure the existing marina docks and install shore protection along the southern edge of the marina property to shore up the existing embankment. The five dock structures will be reconstructed to have pier lengths of 200', 272', 260', 202', and 128' (proceeding from south to north). The new piers will not project any further into the Pine River than the existing dock structure. The piers are designed to be nine feet wide, with adjustable 3-foot wide finger docks. Two docks on Pier 3 will be 6-foot wide to comply with current ADA guidelines. The finger docks will range from 32 to 42 feet in length and will be spaced to correspond to the modern standards for slip width.

In addition to the five pier modifications, the four existing long docks will be removed. In their place three new long docks will be constructed. Docks 1 and 2 will be 70 foot in length, while Dock 3 will be 80 feet in length. Dock 3 will also have three 42 x 3 foot finger docks extending from its northern side. All finger docks will be 3-foot wide. The proposed renovations will reduce the total number of slips by 9.

All finger docks on the main piers and the head piers will be adjustable to suit varying water levels. An ADA compliant access ramp on Pier 3, with 2 ADA finger docks provides compliance with ADA. Additionally, ADA designated parking spaces are proposed

for the parking lot in front of Pier 3. An ADA compliant fish cleaning station will also be constructed west of the marina service building.

Six slips on Pier 3, and all of the slips on Piers 4 and 5 are designated as seasonal slips. Slips on Piers 1 and 2, together with 14 slips on Pier 3 and Long Docks 1, 2, and 3 are designated as transient slips. Thus, there will be a total of 36 seasonal and 59 transient slips.

The gas/pumpout dock will remain on the head pier of Pier 3, and will be similar in nature to the existing facilities. The gas and pumpout facilities will comply with all applicable laws and regulations for construction and use of such facilities. The attendants shed will contain booms, absorbent pads and other containment and control materials in the event of a spill. Marina personnel trained in the proper operating procedures of such facilities will operate the fuel and pumpout facility. In the event of such a spill, an existing spill contingency plan would be implemented to contain and cleanup the spill.

Additionally, the City proposes to install 44 linear feet of steel sheet piling along the southern edge of the Marina property. The sheet piling is intended to serve as a corner to the sheet piling of the neighboring property, which will prevent further erosion of the properties. Additional riprap will be placed in front of the new steel bulkhead to replace lost riprap. A sediment curtain will be installed in the river prior to installation of the steel sheet pile to contain any possible sedimentation resulting from this portion of the project. The following permits have been issued for the above-described work:

MDEQ Permit # 00-74-0231
USCOE Permit # 00-014-000-1

The City will also mechanically dredge the Marina to a depth of 6.5 feet below Low Water Datum (LWD). Approximately 10,000 cubic yards of bottom material will be removed. The material will be dewatered in an upland, gravel parking lot on the west side of the Pine River, across from the Marina, The property is owned by the City. Following dewatering, the material will be trucked to an upland disposal site located in Smith Creek, Michigan as per USCOE Permit # 00-014-000-0 and MDEQ Permit # 00-74-0001 for permanent disposal.

To mitigate any adverse impact resulting from the dredging and construction operations, appropriate BMPs shall be utilized during operations. These shall include, but not limited to, sediment curtains installed around dredging and construction areas to contain sediment movement resulting from dredging and

construction, silt curtains around the temporary dewatering site and permanent dredge material disposal site to prevent sediment-laden water from returning to any waterway or wetland. Additionally, dredging and construction activities shall also be limited to the periods before and after prime boating season to reduce impact to navigation. Construction noise shall also be mitigated by providing provisions in the plans and specifications requiring that the construction contractor make every reasonable effort to abate noise during construction. These include, but are not limited to, limiting hours of construction, use of mufflers and eliminating "tailgate banging".

It should be noted that the renovation of the existing seasonal slips are not eligible for funding through the Sports Fish Restoration Grant Program. Only the transient slips and associated improvements are eligible for funding. The seasonal slips are included in this EA since the renovation will be completed as one project. Thus, it is important to understand the environmental impact of the entire project, not just a portion. The preliminary engineering estimate for the entire project is $3,317,000, of which $2,744,000 is for the transient facilities.

See Appendix B for detail project drawings for this Alternative.

2.2.2 Alternative B (No Action)

The No Action Alternative would be not to renovate and dredge the Marina. Thus, the Marina would remain in its current condition and would continue to not meet modern design standards or accommodate today's larger, more contemporary boats. Additionally, the structural integrity of the docks and piers would continue to decline, increasing the amount and cost of maintenance and jeopardizing the safety of the marina patrons. Without shoring up the existing southern shore, the shoreline will continue to be undermined, depositing sediment into the Pine River. See Appendix B for a detail project drawing for this Alternative.

2.2.3 Alternative C (New Transient Marina)

Alternative C proposes to construct a new transient marina to be located along the west bank of the Pine Rive across from the existing marina. A portion of a City owned gravel parking lot, adjacent to the Municipal Golf Course and private boathouses, would be excavated to create a small basin for the new marina.

Approximately 2000 cubic yards of the shoreline will be excavated from an area 400 foot long by 45 foot wide to an elevation of –4 LWD to create the marina basin. All excavated material will be trucked to an upland disposal area located in Smith Creek, Michigan. The City has utilized this site previously for the placement of such material. Excavation of the shoreline will allow the docks to be constructed without trespassing into the navigation channel of Pine River.

The shoreline of the basin will be protected with a steel sheetpile seawall with riprap toe protection. All appropriate BMPs, including a sediment curtain will be utilized during construction to contain any possible sedimentation resulting from the construction. Additionally, limiting construction activities to the periods before and after prime boating season will reduce possible impact to navigation, while construction noise will be mitigated by providing provisions in the plans and specifications requiring that the construction contractor make every reasonable effort to abate noise during construction. These include, but are not limited to, limiting hours of construction, use of mufflers and eliminating "tailgate banging".

The new transient marina would consist of 11, 42-foot single dock structures extending perpendicular from the shore within the excavated basin. The docks would be adjustable and similar in nature to those proposed in Alternative A. Ten of the docks will be 3-foot wide, while the eleventh will be 6-foot wide and comply with ADA guidelines. The new docks will be spaced to correspond to the modern standards for slip width. Access to the docks will be directly from an adjoining sidewalk and parking lot. Access to the ADA dock will be by an ADA compatible ramp. All of the slips will be provided with water, and electric service.

A new fuel/pumpout station located at the north side of the marina will provide fuel and pumpout facilities. This facility will be designed to meet all applicable local, state, and federal regulations for such facilities.

Marina personnel trained in the proper operating procedures of such facilities will operate the proposed fuel and pumpout facility. In the event of a spill, a previously prepared spill contingency plan would be implemented to contain and cleanup the spill. The attendant's office will contain booms, absorbent pads and other containment and control materials.

The attendants building with restrooms and shower facilities will be located near the ADA slip and fuel station. Two ADA parking

spaces will be provided in the parking lot by the building. This facility will comply with all applicable ADA requirements for such facilities.

The City will also mechanically dredge the Pine River as outlined in Section 2.2.1. The river will be dredged to a depth of 6.5 feet below Low Water Datum (LWD). Approximately 4,000 cubic yards of bottom material will be removed and trucked to an upland disposal site located in Smith Creek, Michigan as per the permits for permanent disposal.

Alternative C would require new permits from the MDEQ and USCOE, as construction of a new transient marina is not included in the existing permits. The preliminary engineering cost estimate is $1,772,000.

It should be noted that since Alternative C is designed for transient use only, it is eligible for funding under the Sport Fish Restoration Program. Though this Alternative provides 20 additional transient slips to the area, it does not address renovations or dredging of the existing Marina and the transient slips located there. The existing Marina would continue to require increasingly costly maintenance, and the existing transient slips would still not conform to modern design standards, or accommodate today's larger boats.

Though Alternative C is cheaper in cost than the Preferred Alternative, it does not meet the needs of the City or the transient boater.

See Appendix B for a detail project drawing for this Alternative.

2.2.4 Summary of Alternative Actions Table

Alternative Actions Summary			
	Alternatives		
	A: Preferred	B: No Action	C: (Transient)
Number of Slips	95	110	20
Transient/Seasonal	55/40	65/45	20
Dredging	Yes	No	Yes
Number of Well Piers	3	4	0
Number of Head Piers	4	4	0
Conform to Modern Standards	Yes	No	Yes – Transient No - Existing
ADA Compliance	Yes	No	Yes -Transient No - Existing
Safety Issues	No	Yes	No – Transient Yes - Existing
Transient Cost	$2,744,000	$0	$1,772,000
Total Project Cost	$3,317,000	$0	$1,772,000

3.0 AFFECTED ENVIRONMENT (PREFERRED ALTERNATIVE)

3.1 Physical Characteristics

The Marina is located on the Pine River, about 900 feet upriver of the inlet into the St. Clair River junction in the City of St. Clair. It consists of four 60-foot dock wells and five docks with head piers and finger docks. The head piers are 199, 272, 255, 201, and 119 feet in length. The marina has 110-slips and a fuel/pumpout dock with an attendant shed. The Marina is located on the south and east side of the Pine River adjacent to the Wastewater Treatment Plant. A private club marina is located south of the Marina. The Preferred Alternative is within open water of the Pine River along the southern water/land interface. The area where the current marina facilities are located was once upland. The shoreline was excavated to provide the necessary area for the Marina. The Marina facilities building, parking lot and boat launch are located on uplands adjacent to the river.

3.2 Biological Environment

3.2.1 Habitat/Vegetation

The upland portion of the property consists primarily of buildings for the marina facilities and the parking lot. The vegetation consists of

grass and landscape trees around this developed area. The riparian portion of the property (along the water's edge) contains a mixture of riprap and steel sheet piling. The neighboring properties have sheet piling for shore protection. No vegetation or habitats exist along this area. The water column and river bottom do support habitats for a variety of aquatic vegetation and wildlife. There are no wetlands located within the project area.

3.2.2 Threatened, Endangered, and Candidate Species

There are no known threatened, endangered, or candidate species within the project area. The Proposed Action will not encroach upon the habitat of any threatened, endangered, or candidate species. See Appendix C for a copy of the NO IMPACT rulings from the USFWS and the MDNR.

3.2.3 Other Wildlife Species

The Pine River yields a variety of fish including walleye, perch, sturgeon, smelt, muskie, and salmon. Waterfowl and songbirds can be found within and adjacent to, the project area. The riprap provides homes for fingerlings and crustaceans.

3.3 Land Use

The marina property is used solely as a commercial marina that supports the local recreational boating and fishing activities. The neighboring land along the river has all been developed into a mixture of commercial and residential properties, some of which have docks. Further away from the marina and river, the land is primarily used for agricultural purposes.

3.4 Cultural/Paleontological Resources

There are no known archaeological concerns within the existing marina. The existing development and the geological makeup of the project site are such that there is little likelihood that a historic property exists or may be affected by the proposed project. See Appendix C for a letter from the State Historic Preservation Office (SHPO).

Additionally the following tribes have been contacted regarding the project:

Bay Mills Indian Community of Michigan
Fond du Lac Reservation Business Committee
Grand Traverse Band of Ottawa and Chippewa Indians
Leech Lake Band of Objibwe
Little Traverse Bay Bands of Odawa Indians

Seneca Nation of Indians

In December 2000 the Saginaw Chippewa Indian Tribe responded to the USCOE request regarding permitting with a letter stating, "...we do not have any information concerning the presence of any Indian Traditional Cultural properties, Sacred sites, or other Significant Properties for the above mentioned areas." See Appendix C for a copy of the letter.

No other tribes have responded.

3.5 Local Social-Economic Conditions

A renovated marina is part of a larger plan to make the waterfront a natural asset of the city as per the *Waterfront Master Plan* by Abonmarche (2004). An attractive waterfront encourages pride, additional investment and greater economic activity for the City of St. Clair. A renovated marina will benefit all boaters and fishermen by providing docks that are safe and wide enough to accommodate today's wider boats.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Impacts Common to All Alternatives

4.1.1 Threatened, Endangered, and Candidate Species

The Preferred Alternative, or any of the Alternatives, will have no adverse effect on threatened, endangered, or candidate species within either project area. See Appendix C.

4.1.2 Cultural/Paleontological Impact

No adverse effect on cultural resources would be anticipated from carrying out any of the three Alternatives. The existing developments and the geological makeup of the project sites for Alternative A and C are such that there is little likelihood that a historic property exists or may be affected by the proposed project areas.

The Pine and the St. Clair Rivers are not designated as a State or Federal Wild and Scenic River. Additionally, the Preferred Alternative or any of the other Alternatives will not affect National or State Landmarks, Lakeshores, Parks, or Monuments, including Indian religious or cultural sites. See Appendix C.

4.1.3 Environmental Justice

Executive Order 1289, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, 59 Federal Register 7629 (1994), directs federal agencies to incorporate environmental justice in their decision making process. Federal agencies are directed to identify and address as appropriate, and disproportionately high and adverse environmental effects of their programs, policies, and activities on minority or low-income populations.

No environmental justice issues exist for any of the alternatives. The area for Alternative A is currently used as a marina, while Alternative C is vacant property. All of the Alternatives will have no impact on riparian or other usage of State Waters.

4.2 Land Use

The use of the land would remain constant for Alternatives A and B. The current use of the land is for a commercial marina that supports the local recreational boating activities. Alternative A will only result in modifications to the marina structures, not its use.

The site for Alternative C is vacant property used as a parking lot and storage area by the City. Alternative C will convert the vacant property to a transient marina along the shoreline.

4.3 Habitat

4.3.1 Alternative A (Preferred Alternative)

Dredging along the seawalls and within the marina may provide deep-water habitat for fish to overwinter. No loss or gain of aquatic habitat for fish to spawn or forage or for migratory and shore birds would result by Alternative A.

4.3.2 Alternative B (No Action)

No loss or gain of aquatic habitat for fish to spawn or forage or for migratory and shore birds would result by Alternative B. Deep-water habitat for fish to overwinter will be lost, as dredging will not be carried out.

4.3.3 Alternative C (New Transient Marina)

Natural shoreline habitat will be lost due to the excavation for a basin and installation of steel sheetpile seawall. The area of upland to be excavated is primarily stone and void of vegetation. It offers

little or no habitat for wildlife. The loss of aquatic habitat will be mitigated somewhat by the placement of toe stone in front of the seawall. The dredging/excavation may also provide additional deep-water habitat for fish.

4.4 Biological Impacts

4.4.1 Alternative A (Preferred Alternative)

The project should increase the overall usage of the marina and other public recreation facilities in the area. This could lead to an increase in noise and litter and possible degradation of existing recreational facilities due to increased usage. This increase is expected to have minimal long-term impact on waterfowl, shorebirds, and other wildlife due to the short boating season. Additionally, the addition of steel sheetpile along the southern shoreline will prevent additional sedimentation and erosion into the Pine River.

The additional boating activity may increase shoreline erosion of unprotected property outside of the project area due to boat wakes. This is expected to have minor, long-term negative impacts on erosion however.

4.4.2 Alternative B (No Action)

Status quo would be maintained, thus no adverse biological impact is expected.

4.4.3 Alternative C (New Transient Marina)

The addition of a new transient marina will have similar biological impacts as Alternative A. The additional fuel and pumpout facilities may increase the probability of a spill but the spill prevention steps as outlined in Section 2.2.3 mitigate this concern.

4.5 Water Quality

4.5.1 Alternative A (Preferred Alternative)

Disturbance of the river bottom during construction and dredging activities will result in re-suspension of sediments within the marina, dredge areas and immediately downstream. This could result in a reduction in dissolved oxygen levels and reintroduction of particulates in the water column. This negative impact is expected to be short term however, as turbidity and suspended contaminants should return to pre-construction levels following

project completion due to the nature of the sediments, and the swift velocity of the water current.

Increased boater use of the area may also result in water quality degradation due to fuel and oil spills, littering, and increased turbidity due to prop wash eroding unprotected areas of the river bank. This is expected to result in only a minor long-term negative impact to water quality.

4.5.2 Alternative B (No Action)

Without repairs, the southern shoreline will continue to erode and deposit sediment into the Pine River. This could cause a minor reduction in dissolved oxygen levels due to increased turbidity in the immediate area.

4.5.3 Alternative C (New Transient Marina)

The water quality impacts during construction of the marina are the same as the Preferred Alternative as described in Section 4.5.1.

Increased boating use of the area resulting from the additional transient slips may also result in water quality degradation due to fuel and oil spills, littering, and increased turbidity due to prop wash eroding unprotected areas of the river bank.

This Alternative also does not address the erosion problems of the south shoreline of the existing marina. Without repair measures, sediment will continue to erode into the Pine River. However, this is expected to result in only minor long-term negative impact to water quality.

4.6 Floodplain Impacts

4.6.1 Alternative A (Preferred Alternative)

The proposed project will have no effect on the measurable water elevation during a flood event, as the water level of the project area is under the static control of the Great Lakes. Thus no impacts on flood hazards and floodplain values are expected.

The renovations proposed in Alternative A have been designed to withstand a flood event with minimal impacts. The docks and piers are adjustable and designed to allow vertical movement to compensate for water level changes.

4.6.2 Alternative B (No Action)

The minimal impact against the existing structures in a flood event cannot be guaranteed for this Alternative as a result of the age and condition of the marinas' current facilities. The finger docks and piers are not adjustable and cannot compensate for water level fluctuations.

The flood hazard and floodplain values would remain status quo.

4.6.3 Alternative C (New Transient Marina)

The floodplain impacts for the new transient marina are the same as those of the Preferred Alternative as outlined in Section 4.6.1. However, as the existing marina is not being renovated, the floodplain impacts will remain as outlined in the No Action Alternative, Section 4.6.2.

4.7 Navigation Impacts

4.7.1 Alternative A (Preferred Alternative)

During construction, the equipment and temporary structures could cause an obstruction to navigation. The proposed lengthening of the long piers could restrict the navigation channel within the river, however the navigation channel is sufficiently wide enough that this restriction would not cause undue interference with access to, or use of, navigable waters by the riparian owners and general public. The proposed slip widths will allow safer and easier access for mooring, especially for the modern, wider boats. The reduction in the number of slips could also serve to reduce boating congestion within the marina.

4.7.2 Alternative B (No Action)

Without dredging, the marina will lose slip space and the sediment deposition will negatively impact navigation.

4.7.3 Alternative C (New Transient Marina)

To minimize navigation problems within the river, the docks will be constructed within a basin excavated into the shoreline. During construction, the equipment and temporary structures could cause an obstruction to navigation.

The proposed slip widths will allow safer and easier access for mooring of today's modern, wider boats. However, the increased

number of slips within the area could result in an increase in congestion of the river, especially during peak weekends and holidays. Ingress and egress into the new slips could conflict with the navigation channel, however, the navigation channel is sufficiently wide enough that this restriction would not cause undue interference with access to, or use of, navigable waters by the riparian owners and general public.

4.8 Social-Economic Impact

4.8.1 Alternative A (Preferred Alternative)

The loss of 15 slips will have a minor impact on the economics of the marina's overall operations. It can be expected that the improved marina will result in increased slip rental fees, therefore mitigating the lost slip revenue. The contractor, material supplier, and other commercial enterprises will see a short term benefit economically during the construction period, however much of this money may not remain in the St. Clair area. An improved marina will serve as a destination point for tourists and fishermen resulting in an increase in long-term economic activity to the City of St. Clair. It is expected that economic benefits would be seen in increased local tax revenue, community services, and local business opportunities.

Construction activities will increase short-term noise pollution during construction. Following construction, long-term noise increases may result due to increased usage of the facility, however this is expected to be minor.

4.8.2 Alternative B (No Action)

No action will result in the continued deterioration of the existing marina docks and piers, and adversely impact the safe operation of the marina. The existing slip widths do not meet modern design standards, thus hindering efforts to attract boaters, resulting in lost revenue and negatively impacting both the marina and the community.

4.8.3 Alternative C (New Transient Marina)

This Alternative may lead to an increase in boater usage in the area, as the marina will conform to the needs of today's modern boats. The number of transient slips in the area also will increase. Alternative C provides convenient access to the municipal golf course and other amenities located on the north side of the river, which can be attractive to transient boaters. For the short term,

the additional fueling and pumpout capacity will allow more boats to be serviced, reducing the time to service boaters during a fishing tournament. This may lead to attracting additional tournaments to the area, which will have a positive economic impact on the City. However it is expected that long-term boater usage within the area will decrease as the existing marina continues to degrade.

4.9 Cumulative Impacts

4.9.1 Alternative A (Preferred Alternative)

The City of St. Clair is situated on the St. Clair River between Lake Huron and Lake St. Clair. This unique location attracts sport fisherman and transient boaters from all over. A renovated marina will increase tourism to the St. Clair area by providing the modern facilities necessary to accommodate the wider boats of today. This will result in a positive economic impact on the City of St. Clair.

An influx of additional people to the area may also result in a minor increase in noise, litter problems, air pollution, and water quality.

There will be minimal impact on wildlife in the area with the increase in user activity. No habitat would be lost. The proposed renovations will have no impact on flood events, and the new structures are designed to allow for vertical movement of the water. Water quality and noise impacts will be short term and minor, primarily during construction activities.

4.9.2 Alternative B (No Action)

The No Action Alternative will maintain the status quo of the existing marina. The structural components of the docks will continue to deteriorate, leading to possible safety hazards and loss of dock structures. The south shoreline will continue to erode, depositing sediment into the Pine River and causing property damage to neighboring property. Additionally without dredging, the marina facilities will continue to silt in, resulting in navigation problems and loss of slips.

The decline of the marina will jeopardize the City's ability to attract and support both the sport fisherman and transient boater. This will result in a negative impact to the economy of the area. A deteriorating public marina does not promote tourism or provide safety to the boating public.

A reduction in utilization of the marina however will lead to a reduction in overall noise, litter, and air pollution in the area, as the transient boater and fisherman will go elsewhere for services.

4.9.3 Alternative C (New Transient Marina)

The cumulative impacts of Alternative C are similar in nature to Alternative A. The new transient marina will offer modern facilities in a destination area to attract the transient boater. The new marina increases the number of available transient slips within the area to 65.

However, the existing marina would not be renovated and would continue to decline. The City of St. Clair would continue to incur an increasing maintenance expense, and loss of slips due to structural problems. The existing marina will be increasingly unable to accommodate both the seasonal and transient boater, which would result in a reduction in overall boater visits and economic loss to the City.

Additionally, continued erosion along the south boundary of the existing marina will result in damage to the seawall of the adjacent property, and continued deposition of sediment into the river.

4.10 Summary of Environmental Consequences by Alternative

Environmental Consequences Summary			
Impact	Alternatives		
	A: Preferred	B: No Action	C: Transient
Listed Species	N/A	N/A	N/A
Land Use	Status quo	Status quo	Status Change from upland to marina
Environmental Justice	N/A	N/A	N/A
Habitat	No adverse impact	Status quo	No adverse impact
Biological	Minimal adverse impact	No impact	Minor adverse impact
Water Quality	Short term minor adverse impact; Long term minimal adverse impact	Minimal adverse impact	Short term minor adverse impact; Long term minimal adverse impact
Floodplain	No impact	No impact	No impact
Navigation	No minimal impact	Low water hazards from siltation	Increased congestion Siltation problems in existing marina
Social -Economic	Positive impact	Negative impact	Short term positive impact Long term negative
Cumulative	Short term minimal impacts during construction; Positive long term safety and economic impacts	Negative impact on safety, navigation and economics; Positive impact on noise, litter	Short term minimal impacts during construction; Negative long term safety and economic impacts

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6.0 CONSULTATIONS AND COORDINATION WITH THE PUBLIC AND OTHERS

The following agencies have been contacted during the development of this EA. Their comments or reports are included in Appendix D:

- City of St. Clair;
- Michigan Department of Environmental Quality;
- Michigan Department of Natural Resources, Wildlife Division;
- Michigan State Historic Preservation Office;
- United States Army Corps of Engineers, Detroit District;
- United States Department of Interior, Fish and Wildlife Service.

7.0 PUBLIC COMMENT AND RESPONSES TO DRAFT EA

Once the USFWS has accepted the Draft EA, a news release soliciting public comments on the draft will be prepared by the USFWS and distributed statewide by the External Affairs Office. The EA and all Appendices will also be posted on the USFWS, Region 3 website. The City of St. Clair will also prepare a news release soliciting comments on the draft EA.

8.0 REFERENCES CITED

- *Charles F. Moore Municipal Marina Master Plan – Final Daft, City of St. Clair, Michigan*, The Abonmarche Group, Benton Harbor, MI, May 2000.

- *City of St. Clair Pine River Waterfront Study, Draft Report*, The Abonmarche Group, Benton Harbor, MI, March 2004.

- *Flood Insurance Rate Map, City of St. Clair, Michigan*, United States Department of Housing and Urban Development, June 15, 1978.

- *Michigan Department of Environmental Quality Permits*, Files Number 00-74-0001, and 00-74-0231.

- TerraServer, http://terraserver-usa.cpm/, TerraServer Image Courtesy of the USGS, Aerial Photograph, April 7, 1999.

- TerraServer, http://terraserver-usa.cpm/, TerraServer Image Courtesy of the USGS, St. Clair Quadrangle, July 1, 1991.

- United States Army Corps of Engineers Permits, Files Number 00-014-000-0, and 00-014-000-1.